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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,372	02/27/2002	Tatsuoki Kohno	219995US0TTCRD	4786

22850 7590 09/22/2006

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EXAMINER
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WEINER, LAURA S

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 09/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/083,372	Applicant(s) KOHNO ET AL.	
	Examiner Laura S. Weiner	Art Unit 1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-4,6,8,10 and 12-22 is/are pending in the application.
- 4a) Of the above claim(s) 16-22 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10 and 12-15 is/are allowed.
- 6) ☒ Claim(s) 1-4,6 and 8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

**DETAILED ACTION*****Response to Arguments***

1. Applicant's arguments filed 8-11-06 have been fully considered but they are not persuasive. Applicant argues that a gel electrolyte, a gel is a distinct solid-state physical form which has not viscosity, but is itself a self-supporting structure having compression strength while a liquid has viscosity but has not mechanical strength. The examiner disagrees because has stated below Clarke et al. (US 2004/0202939) teaches on page 2, [0022], that the gelled electrolyte will typically have a viscosity of at least 100 cP, more typically a viscosity of at least 1,500 cP and even more typically a viscosity of at least 10,000 cP and most typically a viscosity of at least 250,000 cP (all measured at room temperature). Fauteux et al. (5,846,267) teaches in column 4, lines 54-57, that the gel electrolyte had a viscosity of 500 cPs. Yoshida (JP 55-12672, 2 abstract) teaches a gel electrolyte having a viscosity of 10,000 cP and a gel electrolyte having a viscosity of 200-20000 cP. Therefore the rejection of claims 1-4, 6, 8 remain rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Venkatasetty (4,522,690).

The rejection of claim 1 has been withdrawn but intended use of the battery components have been given no patentable weight because as stated previously, the use of the electrolyte in a secondary battery does not further add limitation to the electrolyte. An electrolyte cannot comprise a battery.

***Election/Restrictions***

2. Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 16-22 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

***Claim Rejections - 35 USC § 102***

***Claim Rejections - 35 USC § 103***

3. Claims 1-4, 6, 8 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Venkatesetty (4,522,690).

Venkatesetty teaches in column 1, lines 59-64, a nonaqueous, aprotic electrolyte system comprising 1.0 M LiClO<sub>4</sub> in gamma-butyrolactone gelled with a small amount of polyethylene oxide (about 1% by weight based on the other constituents) [*claimed range 0.01-10% by weight*].

Since Venkatesetty teaches the same electrolyte comprising a nonaqueous solvent gamma-butyrolactone, and a macromolecular material having the claimed formula, a polyethylene oxide in amount of 1% by weight then inherently the same electrolyte having a viscosity at 20 degrees C of 60-30,000 cP or 200-10,000 cP at a shear rate of 20 S<sup>-1</sup> or is a fluid exhibiting non-Newtonian properties or the ratio of ion conductivity to viscosity is less than 0.1 must also be obtained.

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In addition, the presently claimed property of an electrolyte having a viscosity at 20 degrees C of 60-30,000 cP or 200-10,000 cP at a shear rate of  $20 \text{ S}^{-1}$  or is a fluid exhibiting non-Newtonian properties or the ratio of ion conductivity to viscosity is less than 0.1 would have obviously have been present once the Venkatasetty product is provided. *In re Best*, 195 USPQ 433 (CCPA 1977).

***Allowable Subject Matter***

4. Claims 10, 12-15 are allowed.

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Clarke et al. (US 2004/0202939) teaches on page 2, [0022], that the gelled electrolyte will typically have a viscosity of at least 100 cP, more typically a viscosity of at least 1,500 cP and even more typically a viscosity of at least 10,000 cP and most typically a viscosity of at least 250,000 cP (all measured at room temperature).

Fauteux et al. (5,846,267) teaches in column 4, lines 54-57, that the gel electrolyte had a viscosity of 500 cPs.

Yoshida (JP 55-12672, 2 abstract) teaches a gel electrolyte having a viscosity of 10,000 cP and a gel electrolyte having a viscosity of 200-20000 cP.

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6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

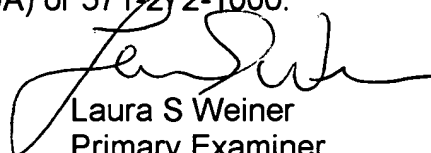
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura S. Weiner whose telephone number is 571-272-1294. The examiner can normally be reached on M-F (6:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Laura S Weiner  
Primary Examiner  
Art Unit 1745

September 18, 2006